1: Leuk Res. 1992;16(3):227-34.

Surface expression of the alpha 2-macroglobulin receptor on human malignant blood cells.

Moestrup SK, Hokland P.

Institute of Physiology, Aarhus University, Denmark.

The surface expression of the alpha 2-macroblobulin receptor (alpha 2MR), detected by a monoclonal antibody, A2MR alpha-2, was determined on mononuclear blood cells from 90 cases of malignant blood disease. Flow cytometric analyses combined with immunoblotting and ligand binding experiments revealed that alpha 2MR was expressed on malignant cells from patients with acute and chronic myelomonocytic leukemias, while no significant expression was found on malignant cells from acute and chronic lymphatic leukemia, lymphomas, plasma cell leukemias or hairy cell leukemia. In acute myeloid leukemia, alpha 2MR was expressed in 50% of the M4-M5 cases, but only in three of thirty of the morphologically undifferentiated or non-monocytic cases (M1-M3 and M6). In chronic myelomonocytic leukemia five of seven cases were alpha 2MR-positive, while only one of seven cases of chronic myeloid leukemia was positive. The monocytic nature of the hematopoietic cells reacting with A2MR alpha 2 was further confirmed by a close correlation with CD14 surface expression.

PMID: 1560672 [PubMed - indexed for MEDLINE]

1: J Biol Chem. 1990 Oct 15;265(29):17401-4.

Sequence identity between the alpha 2-macroglobulin receptor and low density lipoprotein receptor-related protein suggests that this molecule is a multifunctional receptor.

Strickland DK, Ashcom JD, Williams S, Burgess WH, Migliorini M, Argraves WS.

Biochemistry Laboratory, American Red Cross, Rockville, Maryland 20855.

Ten peptides, derived from human alpha 2-macroglobulin (alpha 2M) receptor by chemical or proteolytic digestion, were sequenced. Comparative analysis revealed that all of the resulting sequences were present within the cDNA-deduced structure of low density lipoprotein receptor-related protein (LRP) (Herz, J., Hamann, U., Rogne, S., Myklebost, O., Gausepohl, H., and Stanley, K. K. (1988) EMBO J. 7, 4119-4127). The findings provide evidence that the alpha 2M receptor and LRP are the same molecule. Further evidence comes from immunoprecipitation experiments using a monoclonal antibody specific for the alpha 2M receptor that show this molecule, like LRP, to contain two polypeptides of approximately 420 and 85 kDa that are noncovalently associated. An additional component of this receptor system is a 39-kDa polypeptide that co-purifies with the alpha 2M receptor during affinity chromatography. Solid phase binding studies reveal that the 39-kDa polypeptide binds with high affinity (Kd = 18 nM) to the 420-kDa component of the alpha 2M receptor. The apparent identity of LRP and the alpha 2M receptor suggests that this molecule is a multifunctional receptor with the capacity to bind diverse biological ligands and highlights a possible relationship between two previously unrelated biological processes, lipid metabolism and proteinase regulation.

PMID: 1698775 [PubMed - indexed for MEDLINE]

- Search History will be lost after eight hours of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.
- Click on query # to add to strategy

Search	Most Recent Queries	Time	Result
#46	Search **#45 and macroglobulin**	13:25:33	4
#45	**Related Articles** for **PubMed** (Select **11145721**)	13:25:00	511
#44	Search **#14 AND autoimmune**	13:24:38	4
#43	Search **#14 AND dense deposit disease**	13:24:25	0
#42	Search **#14 AND colitis**	13:24:14	0
#41	Search **#14 AND pemphigoid**	13:24:04	0
#40	Search **#14 AND goodpastures**	13:23:56	0
#39	Search **#14 AND infertility**	13:23:47	1
#38	Search **#14 AND pemphigus vulgaris**	13:23:37	0
#36	Search **#14 AND arthritis**	11:47:27	5
#35	Search **#14 AND thrombocytopenia**	11:47:15	0
#34	Search **#14 AND neutropenia**	11:47:04	0
#33	Search **#14 AND gravis**	11:46:52	0
#32	Search **#14 AND graves**	11:46:44	0
#31	Search **#14 AND enteropathy**	11:46:34	1
#30	Search **#14 AND vitiligo**	11:46:25	0
#29	Search **#14 AND addison**	11:46:15	0
#28	Search **#14 AND thyroditis**	11:46:06	0
#27	Search **#14 AND throditis**	11:45:59	0
#26	Search **#14 AND anemia**	11:42:44	0
#24	Search **#14 AND cirrhosis**	11:41:27	4
#23	Search **#14 AND mixed connective tissue disease**	11:38:40	0
#21	Search **#14 AND hepatitis**	11:37:59	4
#20	Search **#14 AND polymyositis**	11:37:49	0
#19	Search **#14 AND scleroderma**	11:37:36	0
#18	Search **#14 AND sjogren**	11:37:27	0
#17	Search **#14 AND lupus**	11:37:11	2
#16	Search **#14 AND multiple sclerosis**	11:37:03	2
#15	Search **#14 AND diabetes**	11:36:16	11
#14	Search **low density lipoprotein receptor related**	11:35:57	1176

	protein		
#13	Search **low density lipoprotein receptor related protein AND antibody**	11:35:31	159
#12	Search **low density related protein AND antibody**	11:34:42	553
#9	Search **#7 AND autoimmune**	11:33:49	2
#11	Search **#7 AND autoimmune disease**	11:33:38	1
#8	Search **#7 AND autoimmun?**	11:31:41	0
#7	Search **lrp antibody**	11:31:22	178
#1	Search **alpha 2 macroglobulin receptor and antibody**	10:37:13	142

Clear History

Feb 13 2006 12:53:38